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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,270	08/14/2006	Klaus Kabs	29358US0PCT	6045
22850	7590	08/20/2008		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
REDDY, KARUNA P				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
08/20/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/589,270

**Applicant(s)**

KABS ET AL.

**Examiner**

KARUNA P. REDDY

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) 1-3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/55/02)  
Paper No(s)/Mail Date 8/14/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

### **DETAILED ACTION**

1. Claims filed 8/14/2006 are made of record. Claims 1-4 are currently pending in the application.

#### ***Title***

2. It is noted that title in the "oath" and "specification" do not match. It is noted that there are typographical errors in the title mentioned in "oath".

#### ***Specification***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 2 recites "viscosity of the syrup is from 10 - 80" and is not supported by the originally filed disclosure.

#### ***Claim Objections***

4. Claims 1 and 3 are objected to because of improper grouping of Markush elements. Claims 1 and 3 recite "...selected from one of the following types ... a)...c) ...or d)...f)... and Y g)...". Proper Markush grouping is listed as "selected from the group consisting of A, B, C and D". Alternatively it can be listed as "selected from A, B, C or D". See

MPEP 2173.05(h). The recitation of "or" at the end of "c)" should be deleted and added at the end of "f)" for a proper Markush grouping. Appropriate correction is required.

5. Claims 1-3 are objected to because of the following informalities:

Claims 1 and 3 contain reference to another component to define a substituent (for e.g. claim 1, lines 33-34 recites "where X' and Y' are defined as for X and Y"). For the sake of clarity applicant is requested to define the substituents for each component independently.

Claim 2 recites the method of measurement of viscosity in parenthesis. Use of parenthesis to define a claim limitation is not recommended under current U.S. practice.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1 and 3 recite the limitation "the binders"; "the entire polymer P"; "the OH group" in claim 1 (line 3) and claim 3 (line 5); claim 1 (lines 6-8) and claim 3 (lines 8-10); claim 1 (line 15) and claim 3 (line 17) respectively. There is insufficient antecedent basis for these limitations in the claims.
8. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

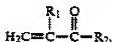
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

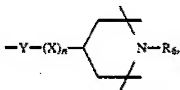
11. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krieg et al (4, 773, 913) in view of Gould (6, 224, 799 B1).

Krieg et al disclose color concentrates comprising a colorant such as a pigment and a polymeric binder (abstract). The polymeric binders comprise (a) 70 to 90 percent by weight of methyl methacrylate, (b) 10-20 percent by weight of methyl acrylate, and (c) and 0 to 10 percent of at least one free radically polymerizable monomer of the formula shown below (column 2, lines 45-68; column 3, lines 1-23) -

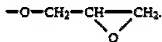


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where  $R_1$  is hydrogen or methyl and  $R_2$  is (i)  $-\text{OH}$ , (ii)  $-\text{NR}_3\text{R}_4$ , wherein  $R_3$  and  $R_4$ , taken alone are the same or different and are hydrogen or linear or branched alkyl having 1 to 5 carbon atoms, and  $R_3$  and  $R_4$ , taken together with the nitrogen atom to which they are bonded, form a 5- or 6-membered heterocycle or such a heterocycle containing further nitrogen or oxygen atoms, (iii)  $-\text{Y}-\text{X}-\text{NR}_3\text{R}_4$ , wherein Y is oxygen or  $-\text{NR}_5-$ , X is linear or branched alkylene having 2 to 10 carbon atoms or is cycloalkylene, and  $R_5$  is hydrogen or alkyl having 1 to 6 carbon atoms, (iv)  $-\text{Y}-\text{X}-\text{OH}$ , (v)



where  $n$  is 0 or 1 and  $R_6$  is hydrogen or alkyl having 1 to 6 carbon atoms, (vi)  $-\text{Y}-\text{X}-\text{Si}(\text{OR}_7)_3$  where  $R_7$  is alkyl having 1 to 6 carbon atoms, or (vii)



Adequate stability is always secured when at least one monomer component (c) is added to the methyl methacrylate in an amount of at least 0.1 percent by weight of the polymer (column 3, lines 38-41). Particularly preferred is the addition of nitrogen bearing monomers of the types (c) (ii) and (c) (iii) identified above (column 3, lines 48-50). Combinations with one or more monomers containing hydroxyl groups, for example of the types (c) (i) or (c) (iv) are also advantageous (column 4, lines 2-4).

The colorant can be incorporated by introducing dispersion of the colorants in a polymeric binder (column 4, lines 46-52). The subsequent steps of pouring the syrup into polymerization cells serving as molds, the polymerization which follows, removal

from molds are carried out by known prior art methods (column 4, lines 42-45). Given that the monomer components used to form the polymer are substantially similar, it is the examiner's position that molded article obtained by the process of Krieg et al is also a plastic molding.

Krieg et al is silent with respect to partial polymer; and viscosity of the syrup.

However, Gould teaches colored additive concentrates for use in the manufacture of thermoplastic articles (column 1, lines 13-15). The additive color concentrate comprises colored particles and binder of a thermoplastic polymer or prepolymer (column 1, lines 66-67; column 2, lines 1-3). The binder is generally thermoplastic resin which serves to bind the shaped particles together and is readily miscible with the let-down resin. Indeed the binder is preferably the same as the let-down resin. This allows uniform dispersion of the particles (column 4, lines 1-6). Therefore, it would have been obvious to one skilled in the art at the time of invention to use a partial polymer in which monomers are polymerized to an extent of 20%, in place of the polymer of Krieg et al because Gould teaches that polymers or prepolymers (i.e. partial polymers) are equivalent and interchangeable in their ability to function as binders in the preparation of additive color concentrates for use in molding and one of ordinary skill in the art would expect the partial polymer in which monomers are polymerized to an extent of 20% to work, motivated by expectation of success..

With respect to viscosity of the syrup, it is the examiner's position that a partial polymer wherein the monomers are polymerized to an extent of 20% would intrinsically have the recited viscosity because viscosity of the partial polymer is dependent on the degree of polymerization.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 1796

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